

# KARO ECHO Newsletter

## KARO ECHO

Serving the communities  
of El Cerrito and  
Kensington, California

**Web:** [www.karoecho.net](http://www.karoecho.net)

**Facebook:**  
[KARO ECHO facebook](#)

**Email:** [info@karoecho.net](mailto:info@karoecho.net)

## Important Frequencies

KE Primary: 146.415 MHz  
Weekly Net, Thurs. 1900

KE Secondary: 146.475 MHz

4Cs Repeater: 145.110 MHz  
(TX down 600 with PL 82.5)

## Monthly Meetings

In-person meetings

2<sup>nd</sup> Monday of each month  
7:00 pm

**(online via Zoom also)**

Kensington Comm. Center,  
59 Arlington Blvd,  
Kensington, CA

The next meetings are:

May 8<sup>th</sup>, 2023

June 12<sup>th</sup>, 2023

Meeting minutes are on  
the website in the past  
events page.

## What's New

### KARO ECHO Monthly Meeting, May 8<sup>th</sup>, 1900 — In-person or Zoom

The monthly KARO ECHO meeting will be **in-person or virtual (Zoom)**, at 1900, Monday May 8th. The meeting will focus on a post-exercise discussion of the Spring KARO ECHO Simulated Emergency Test (SET) held Sat. April 22, 1000-1200. [Full agenda link.](#)

### Thanks for your Participation in the KARO ECHO SET April 22

The KARO ECHO spring Simulated Emergency Test (SET) exercise was very successful. Thank you to all those who participated. In the two hour exercise, we checked-in 25 operators and passed over 40 messages, including 11 welfare messages relayed to internet email using a digital radio link connecting to the Win-link system. [Recordings available here.](#) Page 5 has a coldwash from Don NI6A.

### FCC now requires RF Exposure Self-evaluation for All Stations

See the [ARRL RF exposure page](#) for more information on complying with this rule that took effect for all operators on May 3rd. The ARRL provides a [handy RF exposure calculator](#) that is easy to use and can evaluate the safe working distance from you antenna based on power, gain, freq., and duty/duration, etc. Reach out to [elmer@karoecho.net](mailto:elmer@karoecho.net) if you have questions about how to proceed.

### Join the Fenton's Radio Friends Open House, May 27, 11:00 - 2:00

Karen KK6ZPM and Jay KJ6WSS invite you to their Radio Friends Open House on Saturday May 27th, 11:00am - 2:00pm. The location is 116 So. 4th St., Richmond. There will be food, friendly radio discussion and lot of hands-on demonstrations and activities. The full flyer is on page 4. Volunteers are need to help, please contact Karen.

### Dues/services Survey for ARRL Members

The ARRL is considering a change to dues and services. [This survey](#) is your opportunity as a member to provide your input. Login to the website with your member account and complete the [survey at this link.](#)

### El Cerrito—Kensington Fire Department Numbers Reassigned

In order to be more consistent with Fire Dept numbering from community to community, the County has reassigned El Cerrito stations 71 and 72 to 51 and 52 and Kensington station 65 to 55. Richmond stations are now in the 60 series.

**LOCAL NETS****KARO ECHO Simplex Nets**

146.415 MHz (primary)

146.475 (secondary)

**Voice net:** Thursday, after the West Contra Costa RACES Net, but not before 1900 hours local time.

**Digital net:** Monday, 1900

**West Contra County ACS/RACES Net**

145.110 MHz repeater  
(TX down 600 with PL 82.5)  
Thursday: 1845 local time

**Contra Costa County HF EmComm/RACES Net**

3893 KHz. Thursday, 1835

**American Red Cross of the Bay Area (ARCBA)**

WW6BAY Repeater  
443.975 MHz  
TX +5 MHz, PL 100 Hz  
Wednesday: 2000 local time

**BOARD MEMBERS**

President: Howdy KE6BEE  
Vice-Pres: Frans KJ6IUV  
Treasurer: Annette KJ6SWK  
Secretary: Tom KN6BUY  
Em. Coor: Howdy KE6BEE  
Outreach/PR Manager:  
Blake KN6CMP  
Web-maestro: Rob K6RJM  
Board member at large:  
Hal KK6NDF  
Net Manager and Newsletter  
Editor: Howdy KE6BEE

**What's New *(continued)*****First Wed. Neighborhood nets and Communication Hub Activities**

**West county EmComm net out of Richmond at 11 am** (starts after the Richmond siren test) FRS/GRMS simplex (on Ch.19, secondary Ch. 17), followed by a ham net on the **WA6KQB 440 repeater** with WA6DUR repeater as secondary (see WA6DUR freq. information below)

**East Richmond Heights**, ham operators check-in at 1845 on Walt's WA6DUR repeater 442.150 +5 offset and PL tone 107.2Hz.

**EC4 (central El Cerrito Hills)** CERT Net, Ch. 2 (462.5875), at 1845

**EC9 (north El Cerrito Hills)** CERT Net, Ch. 15 simplex (462.550), at 1900

**East Richmond Heights, Ready-2-React Net**, Ch. 7 (462.7125), at 1930

**EC7 and EC8 (north El Cerrito)** CERT net, Ch.4 (462.6375), at 2000

**Ken6 (SW Kensington)** CERT net, on first Tuesdays, Ch. 6 (462.6875) at 1900

**Richmond simulated EOC net**, first Thursdays at 1030, on three simplex frequencies in this order: 147.450, 441.000, 223.400

**Albany Radio Net**, Wed. (weekly) 1900 on Ch.19 [Albany Radio groups.io](http://AlbanyRadiogroups.io)

[Coordination of neighborhood FRS/GMRS frequencies can be found here.](#)

**New Local Ham Licenses**

New El Cerrito licenses issued: none for this month

New Kensington licenses issued: KN6VTY Ednalee and KN6VTC Jim both upgraded to General, Congratulations!

**New Welcome New KARO ECHO Members**

Schuyler KN6WQT (El Cerrito)

Rhys AK6BA (Albany)

Marilyn no call yet (El Cerrito)

**Action - Contribute to this Newsletter**

Content for this newsletter is always welcome. Anyone with events or other content suggestions please send them to the newsletter editor Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

## What's New *(continued)*

### New HF Material on the Website

Thanks to Don NI6A for posting some new documents on the KARO ECHO website. Topics include: HF antennas, propagation and noise reduction and using Software Defined Radio (SDR) receivers available on the internet (a good way to start playing with HF before you have a radio of your own).

[Short Introduction to HF Antennas and Propagation](#)

[Near Vertical Incidence Skywave \(NVIS\) antennas](#) for short range (short skip)

[Introduction to HF, Short Wave, and SDR Listening](#)

[Reducing RF Noise Interference on HF \(the High Frequency bands\)](#)

### 2023 KARO ECHO Survey

Please take a few minutes to [provide feedback through this online survey](#). It will help inform our training, meetings, nets, SETs, events, etc. We really hope for a high number of responses, whether you are currently active or not. We'd like to know what you think, and make KARO ECHO an even better group.

### Online payments to KARO ECHO

It is now possible to pay KARO ECHO membership online through PayPal. No PayPal account is required. Use the [donate button on the KARO ECHO home](#) page, or under the heading "[Get Involved—Join](#)". Your dues and donations are the source of funds for our ongoing costs of operation, as well as installing equipment we need to have in place for effective emergency operations. Currently, we are planning to install additional antennas and patch boxes in El Cerrito and Kensington to give easy outdoor access to high quality communication for operators deployed various public spaces.

Donate



### Treasurer's Report

KARO-ECHO Treasurer's Report				
As of May 5, 2023				
	Credits	Debits	Bank Balance	Notes
Balance Forward from 4/5/2023			\$2,115.08	
Since last report:				
Memberships				
	\$30.00		\$2,145.08	AK6BA
Balance 5/5/23			<b>\$2,145.08</b>	
31 Total paid members to date for 2023				

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## The Fenton's Invite You to a Radio Friends Open House

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**SAVE THE DATE!!**      SATURDAY, MAY 27, 11:00 - 2:00

**Radio Friends OPEN HOUSE @ 116 So. 4<sup>th</sup> Street, Richmond**

Display of Jay's portable/mobile collection

Swap meet - sell, exchange or giveaway **11:00 - 12:00**

Presenting radio clubs, neighborhood groups & nets w/handouts - **11:00 - 11:30**

*Come dressed in club garb (optional)*

Lunch with friends **12:00 - 1:00**

Radio Clinic - (bring your GMRS/ham radio & antennas) **12:30 - 2:00**

- Radio power testing
- Antenna SWR testing
- Radio channel programming
- Personalized advice from an Elmer

Topics demonstrated by Jay & Howdy **12:30 - 1:30**

- Quality antenna choices
- How to measure your actual radio power on different bands
- Why and how to install a memory code plug in your radio
- The importance of low feedline loss
- Upgrading your home or portable station - LiFePO4 batteries, panel mounts, wiring connections & fuses, housings
- Q & A on other radio topics

**Volunteers needed to help set up / staff stations / close shop**

RSVP to karenleongfenton@gmail.com by 5/21

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## 2023 Spring Simulated Emergency Test Cold Wash

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From Don NI6A

**RX station calls TX station:** Since it is imperative that the RX station is able to have good copy from the transmit station, while the transmit station only requires minimum reception, should be obvious. This is most important when the stations change to the new frequency. It is not uncommon in our terrain that the rx station may experience interference from a 3<sup>rd</sup> party, when the TX station does not hear that station. Thus, it is important for the RX station to ask if the frequency is in use and whether the frequency is clear and usable. When on the net frequency, the NCS asks the RX station to: "W6RX call W6TX and move to 144.475". W6TX, then answers: "roger going to 144.475". W6RX also verifies contact as: "W6RX moving" or "W6RX going". I think that you handled it right, and most ops got the hang of it. Sure, replace the FCC callsign with the tactical callsign, but the procedure should be the same.

**Use of KE Modified 213 form:** I snooped around because I had 3 receivers and antennas. Many stations failed to use our modified ICS-213. In some cases, there was no header at all, but most RX stations asked for the nr, station of origin precedence ck, location time and date before acknowledging receipt (QSL). So, what is going on there? Is it a lack of practice?

**Signature not counted in the word count:** I had at least one station mix up the word count by counting the signature as part of the word count. Such undermines the efficient use of the word count, and this is best rectified now. Perhaps more practice will suffice.

**Break every 5 words:** We have been teaching and practicing Breaking at each 5 words by letting go of the PTT and listening for at least 1 full second. Many stations did not do that. Again, more practice is needed.

**NTS list as welfare message:** Instead of listing the welfare traffic for "digital relay", as we do not know what gateways would be available during an actual disaster. It is best for stations to list either E, P, or W (welfare) and let the NCS determine where it should go. In most nets it goes to a NTS relay station (voice, cw, or digital depending).

**Time slots are only approximations:** I noticed that one Marina Bay station did not understand that the time slots to send and receive messages were only approximate suggestions. Stations should not get in the habit telling NCS that they expect a message at certain time. Of course, circumstances like that don't happen in real situations, and we should try to make the SET approximate a real emergency.

**Regarding the IMDs, spurs, parasitics, or bleed through** occurrence, I thought that we eliminated spurs and bleed through on the Thursday evening past (April 27). But it seems that it may have arisen again due to your scope readings. Further research is indicated. When I heard the recording at KE6BEE's home location, it sounded like IMD on 146.475 @ 7 mins – I heard more than one station besides the EOC and KJ6SWF. KN6CMR and KE6BEE were heard on 146.475, but their fundamental frequencies were other. That is why I do not think it is simply Michael's spurs.

**Overall, I recommend more message handling practice.** That seems to have been the most common problem. Of course, there are advanced topics like message center operations, but maybe that can wait.

## Activities

### Weekly Net Control Rotation

Thanks go out to the volunteer stations who have been taking turns as Net Control Stations (NCS) each Thursday. This rotation has been working very well and everyone has been doing a great job. The regular NCS roster has 9 operators. Fill-ins are sometimes needed and we can always add another to permanent rotation. Please volunteer to give it a try. [Download the new Net Script for NCS operators.](#)

Below are the **new scheduled dates** for each operator next year. The [KARO ECHO google calendar](#) also has these assignments and can be found at the bottom of the events page. Add to your electronic calendar By pressing the "+GoogleCalendar" button in the lower right.

Net control is a skill that many operators should have and regularly practice. Please contact Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net) if you are interested in taking a net control assignment.

Callsign	Name	Assigned Dates (skipped: Thanksgiving 11/23/2023)						
KE6BEE	Howdy Goudey	3/23/2023	5/25/2023	7/27/2023	9/28/2023	12/7/2023	2/8/2024	4/11/2024
KK6NDF	Hal Graboske	3/30/2023	6/1/2023	8/3/2023	10/5/2023	12/14/2023	2/15/2024	4/18/2024
KM6HBO	Jamuel Starkey	4/6/2023	6/8/2023	8/10/2023	10/12/2023	12/21/2023	2/22/2024	4/25/2024
KN6BUY	Tom Fattaruso	4/13/2023	6/15/2023	8/17/2023	10/19/2023	12/28/2023	2/29/2024	5/2/2024
K6RJM	Rob McNicholas	4/20/2023	6/22/2023	8/24/2023	10/26/2023	1/4/2024	3/7/2024	5/9/2024
KE6HCE	Armando Picciotto	4/27/2023	6/29/2023	8/31/2023	11/2/2023	1/11/2024	3/14/2024	5/16/2024
KJ6IUV	Frans Kuypers	5/4/2023	7/6/2023	9/7/2023	11/9/2023	1/18/2024	3/21/2024	5/23/2024
KN6CMR	Susan Yeaman	5/11/2023	7/13/2023	9/14/2023	11/16/2023	1/25/2024	3/28/2024	5/30/2024
KK6ZPM	Karen Fenton-Leong	5/18/2023	7/20/2023	9/21/2023	11/30/2023	2/1/2024	4/4/2024	6/6/2024

### Thursday Net Training Exercises

Following the net check-ins every Thursday at 1900 on 146.415, KARO ECHO usually runs a training exercise to learn and practice skills that are important for successful disaster communications.

[A list of potential training exercises](#) is posted and maintained on the training page of the website.

[A log of our check-in counts can be found here.](#) Howdy KE6BEE typically updates this document in real time during the net, so you can check it against your log during or after the net.

For 2020: 1008 check-ins, avg. 21/week, high of 28, 72 unique callsigns

For 2021: 934 check-ins, avg. 19/week, high of 25, 55 unique callsigns

For 2022: 944 check-ins, avg. 19/week, high of 27, 59 unique callsigns, avg. 5 digital check-ins per week

For 2023: 362 check-ins, avg. 20/week, high of 25, 47 unique callsigns, avg. 6 digital check-ins per week

Thanks for your participation. Keep it up!



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## About KARO ECHO

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KARO ECHO is the name of the Kensington Amateur Radio Operators and the El Cerrito Ham Operators mutual benefit association, an all-volunteer non-profit group of amateur radio operators providing auxiliary communications for the cities of Kensington and El Cerrito in the event of a disaster. KARO ECHO works with CERT (Community Emergency Response Teams) in Kensington and El Cerrito, but is not an official part of the CERT program.

Monthly in-person meetings of KARO ECHO are on the 2nd Monday of each month at 7:00 pm, in-person at the Kensington Community Center (KCC) as well as online using Zoom (hybrid meetings).

Yearly membership dues are \$30/year for individuals, \$40/year for a family membership. Payments can be given to the Treasurer at monthly meetings or mailed to the address below. Participation is welcome independent of paid membership, but only licensed amateur radio operators who are dues paying KARO ECHO members will be allowed to vote on KARO ECHO business. Dues cover our 510c3 registration, post office box, web page, station operating manuals and more. Your input on useful expenditures to aid emergency communications is welcome.

Mail to: KARO ECHO, PO Box 2025, 6324 Fairmont Ave, El Cerrito, CA 94530-3651

Please see our website for more information: [www.karoecho.net](http://www.karoecho.net)

You can contact the KARO ECHO board by email: [info@karoecho.net](mailto:info@karoecho.net)

### KARO ECHO Facebook

The [KARO ECHO Group on Facebook](https://www.facebook.com/groups/1451216838315743/) has a lot of good information, more than is contained on our website. There is a whole wide world of emergency communications information at <https://www.facebook.com/groups/1451216838315743/> Check it out and be inspired of what we can do to help disaster victims in our community.

### Weekly Training Net

The Karo-Echo Weekly Training Net meets every Thursday evening immediately after the West Co Co County RACES/ACS Net; but not before 1900 on 146.415 MHz Simplex. Our secondary frequency is 146.475 MHz simplex. Details at <https://www.karoecho.net/events>

### Newsletter Content Wanted

Any input on content you'd like to propose for inclusion in the KARO ECHO newsletter can be sent to Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net) We welcome all ideas for content including announcements, events, etc.

### KARO ECHO Field Day Video

Thanks to Frans KJ6IUV for taking video and editing a nice [movie of Field Day activities](#).

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## Outreach, Education and Licensing

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### Local and Online Ham License Classes and Exams

Many ham license classes and exams are offered locally or entirely online. See a [list of opportunities on the KARO ECHO website](#)

### Mutual Aid Presentation by Dan Goldstein

Daniel Goldstein KJ6KEU (the ARRL East Bay Section Emergency Coordinator and member of the Alameda County Sheriff's Communications Team) gave the presentation [EmComm Mutual Aid in a Digital World on Sept. 10](#).

### ARRL Learning Network Webinars

Visit the [ARRL Learning Network](#) (a members-only benefit) to register, check on upcoming webinars, and to view previously recorded sessions.

### Training for Beginning Operators

Jay KJ6WSS, Edward KM6UBY and Karen KK6ZPM gave an introductory radio class May 23rd 2020 introductory radio class, with emphasis on the GMRS radio BTECH-V1. [A recording of the class and other resources are available here](#).

### Net Control Operator Training

Diane KK6RED, David KJ6AAT and Howdy KE6BEE taught an Apr 4th 2020 net control class. [The class recording is available here](#).

### EMCOMM related videos

See the CERT SET Youtube video link

<https://www.youtube.com/watch?v=66DdgGLn4c&list=PLROOaUIKdrEgSID1bQJZojW3PzfURoEY-&index=144&t=0s>

Post Camp Fire GMRS organization

[https://www.youtube.com/watch?time\\_continue=220&v=aZiSC4sgKYw&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=220&v=aZiSC4sgKYw&feature=emb_logo)

### Ham EXPO and RATPAC recordings

There are recordings of presentations made during past [OSO Today](#) Ham Expos [available for free here](#). In addition [RATPAC](#) organizes weekly live online ham radio presentations, and also offers a [large archive collection of free recordings](#) on a wide variety of ham radio topics.

### ELMERING

An online elmering forum can be accessed by emailing [elmer@karoecho.net](mailto:elmer@karoecho.net) or browsing the associated google group. More in-depth elmering/mentoring is available by request.

In the meanwhile, please check out the plethora of useful information at <https://www.karoecho.net> website.



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## KAROECHO.Net Website

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Especially, check out the EVENTS Page ( <https://www.karoecho.net/events> ) and the WORKSTREAMS drop-down menu which will lead one to an extensive training page that provides online learning at your own pace. Everything from the very beginning to advanced EmComm operations is detailed. The RESOURCE page has many excellent outside links.

- ♦ This [new heading on the Events page](#) will be updated with recent additions to the website.
- ♦ If you are on Facebook, contribute to the KARO ECHO Facebook Group Page at <https://www.facebook.com/groups/1451216838315743/>
- ♦ If you haven't already filled out the JOIN form please do. Find it as a drop down menu under "Get Involved" See <https://www.karoecho.net/join>
- ♦ A [follow-through novice primer](#) has been put on the website for new hams once they have bought their radio and want to learn more.
- ♦ A [dual-band antenna primer](#) for new hams who want to graduate from the rubber-ducky world
- ♦ Note that the Tram 1480 gain dual band antenna is currently still available for \$51 (no tax and free shipping) on ebay or from Home Depot. That and an inexpensive speaker tripod is a dynamite combination for portable operation. This antenna is equivalent to the Diamond X-200a antenna which sells at HRO for \$125.00 before taxes and shipping.
- ♦ For newbies, please visit <https://www.karoecho.net/workstreams/training> and read the study materials. It is all there except for hands-on experience. Ask questions!
- ♦ Following the Thursday evening net check-in, there is often a training session and/or discussion.
- ♦ All recent KARO ECHO [Minutes will be found at our Past Events page](#) We are now including past Executive Board Minutes as well. [Newsletters are on the Documents Page](#).

If you desire to be removed from this email list, please email [info@karoecho.net](mailto:info@karoecho.net)

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## Other Resources

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"ALERTWildfire" camera links in our area:

[William Rust Summit cam](#)

[Wildcat Canyon cam](#)

[Vollmer Peak cam](#)

[Vollmer Tower Top cam](#)

[Pinole Ridge cam](#)

[View real-time data from any weather station in the state.](#)

[Zonehaven evacuation zone here by on this interactive map](#)

[Albany Radio Groups.io forum](#)

[Eastbay Resilience Groups.io forum](#)

[Marina Bay Neighbors and 1st Wed West county GMRS net](#)

The [HeyWhatsThat](#) website is an online tool that can map line of site paths with topography

To make it easy for amateurs to evaluate RF exposure,

ARRL provides an [RF exposure calculator](#) on its [RF Exposure page](#).

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## KARO ECHO Classifieds

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We are soliciting classified ads from KARO ECHO members, and friends, to facilitate gifting, swapping, selling radio gear and/or offering help/services such as loans of special equipment/tools, etc. Please send any content to the newsletter editor, Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

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**Loaner radios/antennas/meters** available for trial/testing, including:

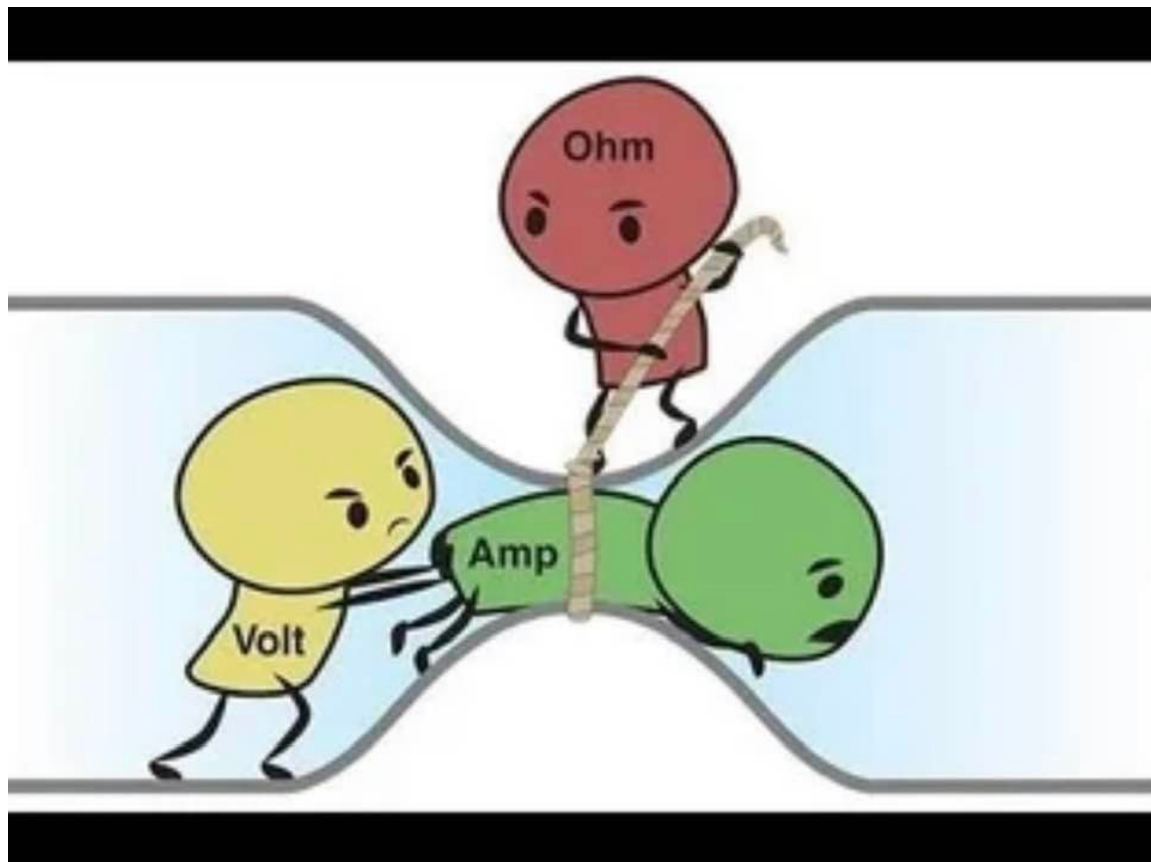
HTs, larger mobile radios, gear for digital modes and mesh nodes, SWR/power meter

Contact: Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

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**Available for free:** B&K Precision 2120B oscilloscope - 20MHz bandwidth, dual trace, triggered sweep. Contact: Tom, KN6BUY, at [tfat@sbcglobal.net](mailto:tfat@sbcglobal.net)

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Visualizing Ohm's Law, courtesy of Tom KN6BUY